

IN THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) A device for sorting products, comprising:

a plurality of supporting units adjacently arranged and configured to move in a direction of transport along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to said conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element,

wherein the tilting mechanism comprises a drive device and at least ~~one cam~~ two cams configured to be rotated by the drive device about ~~[[an]]~~ a common axis of rotation extending parallel to the axis of tilt when ~~[[the]]~~ one cam of the at least two cams moves within a path of a camway so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, and the common axis of rotation is spaced apart from said one cam by a distance, and

wherein the common axis of rotation of the at least ~~one cam~~ two cams is spaced apart from the axis of tilt of the ~~at least one cam~~ supporting surface.

2. (Previously Presented) A sorting device according to claim 1, wherein said support member comprises said camway.

3. (Previously Presented) A sorting device according to claim 1 or 2, wherein said camway extends at least substantially in radial direction with respect to the axis of tilt.

4. (Currently Amended) A sorting device according to claim 1, wherein [[the]] connecting lines between the common axis of rotation and the one cam on the one hand and between the axis of tilt and the one cam on the other hand include an angle ranging between 60 degrees and 120 degrees with each other in the neutral position.

5. (Currently Amended) A sorting device according to claim 1, wherein [[the]] connecting lines between the common axis of rotation and the one cam on the one hand and between the axis of tilt and the one cam on the other hand include an angle ranging between 60 degrees and 120 degrees in the extreme position.

6. (Currently Amended) A sorting device according to claim 1, wherein the tilting mechanism is configured to cause the support member to tilt between the neutral position and the extreme position through rotation through 180 degrees or more of the [[cam]] at least two cams about the common axis of rotation.

7. (Previously Presented) A sorting device according to claim 1, wherein the angle of tilt of the support member between the neutral position and the extreme position ranges between 30 degrees and 60 degrees.

8. (Currently Amended) A sorting device according to claim 1, wherein ~~the tilting mechanism comprises two cams which are jointly rotatable about the axis of rotation~~, during rotation on one side of the neutral position, the one of the at least two cams moves within one of two camways, and during rotation on the other side of the neutral position, the other one of said at least two cams moves within another of the two camways.

9. (Previously Presented) A sorting device according to claim 8, wherein the two camways define a V-shape.

10. (Previously Presented) A sorting device according to claim 9, wherein said V-shape comprises an angle ranging between 30 and 60 degrees.

11. (Previously Presented) A sorting device according to claim 1, wherein said drive device comprises an electric motor for each supporting surface.

12. (Previously Presented) A sorting device according to claim 1, wherein the load carrying platforms of adjacent supporting units abut against each other, each supporting surface comprising upper sides of a supporting element and of a bridging element which overlaps the supporting element at a first end thereof and which is movable in a direction parallel to the supporting surface with respect to the supporting element so as to retain mutual abutment of adjacent load carrying platforms upon passage through a curved section.

13. (Previously Presented) A sorting device according to claim 12, wherein the bridging element is movable in two degrees of freedom with respect to the supporting element.

14. (Previously Presented) A sorting device according to claim 12, further comprising spring means for causing the adjacent load carrying platforms to abut against each other.

15. (Previously Presented) A sorting device according to claim 14, wherein said spring means are operative between a pivot pin, which is operatively connected to one of the supporting element and the bridging element on the one hand and to the other one of said supporting element and said bridging element on the other hand, or at least a part of the supporting unit that is connected thereto.

16. (Previously Presented) A sorting device according to claim 1, wherein said supporting surface is provided with supporting edges extending perpendicularly to the axis of tilt.

17. (Previously Presented) A sorting device according to claim 16, wherein the height of said supporting edges decreases from a point halfway a length of said supporting edges towards the ends thereof.

18. (Previously Presented) A sorting device according to claim 17, wherein the height of the supporting edges equals zero at the ends thereof.

19. (Previously Presented) A sorting device according to claim 16, wherein the height of the supporting edges is at least 6 mm at least at a position halfway the length of said supporting edges.

20. (Previously Presented) A sorting device according to claim 16, wherein the radius of the upper sides of the supporting edges is maximally 8 mm at least at a position halfway the length of said supporting edges.

21. (Previously Presented) A sorting device according to claim 16, wherein spacing between two adjacent supporting edges is more than 10 mm and less than 80 mm.

22. (Previously Presented) A sorting device according to claim 1, wherein the length of each supporting surface, seen in the direction of transport, ranges between 500 mm and 700 mm.

23. (Previously Presented) A sorting device according to claim 1, wherein the length of each supporting surface, seen in the direction of transport, ranges between 300 mm and 500 mm.

24. (Previously Presented) A sorting device according to claim 1, further comprising a plurality of control devices configured to simultaneously activate the tilting mechanism associated with at least two adjacent supporting units during joint support of the product by the respective supporting surfaces associated with the support units.

25. (Currently Amended) A method for sorting products, comprising:

~~characterized by using~~ utilizing a device, ~~according to claim 1~~ comprising:

a plurality of supporting units adjacently arranged and configured to move in a direction of transport along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to said conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element,

wherein the tilting mechanism comprises a drive device and at least two cams configured to be rotated by the drive device about a common axis of rotation extending parallel to the axis of tilt when one cam of the at least two cams moves within a path of a camway so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, and the common axis of rotation is spaced apart from said one cam by a distance, and

wherein the common axis of rotation of the at least two cams is spaced apart from the axis of tilt of the supporting surface; and  
rotating the at least two cams about the common axis of rotation to tilt the supporting surface such that the products can be sorted.

26. (Currently Amended) A sorting device according to claim 1, wherein [[the]] connecting lines between the common axis of rotation and the one cam on the one hand and between the axis of tilt and the one cam on the other hand include an angle ranging between 80 degrees and 100 degrees with each other in the neutral position.

27. (Currently Amended) A sorting device according to claim 1, wherein [[the]] connecting lines between the common axis of rotation and the one cam on the one hand and between the axis of tilt and the one cam on the other hand include an angle ranging between 80 degrees and 100 degrees in the extreme position.

28. (Previously Presented) A sorting device according to claim 16, wherein the radius of the upper sides of the supporting edges is maximally 6 mm at least at a position halfway the length of said supporting edges.

29. (Previously Presented) A sorting device according to claim 16, wherein the height of the supporting edges is at least 8 mm at least at a position halfway the length of said supporting edges.

30. (Currently Amended) A device for sorting products, comprising:

a plurality of supporting units adjacently arranged and configured to move in a direction of transport along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to said conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element,

wherein the tilting mechanism comprises a drive device and at least ~~one cam~~ two cams configured to be rotated by the drive device about ~~[[an]]~~ a common axis of rotation extending parallel to the axis of tilt when ~~[[the]]~~ one cam of the at least two cams moves over a camway so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, and the common axis of rotation is spaced apart from said one cam by a distance, and

wherein ~~[[the]]~~ connecting lines between the common axis of rotation and the one cam on the one hand and between the axis of tilt and the one cam on the other hand include an angle ranging between 60 degrees and 120 degrees with each other in the neutral position or in the extreme position.

31. (Previously Presented) A device for sorting products, comprising:

a plurality of supporting units adjacently arranged and configured to move in a direction of transport along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to said conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element,

wherein the tilting mechanism comprises a drive device and at least one cam configured to be rotated by the drive device about an axis of rotation extending parallel to the axis of tilt when the cam moves over a camway so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, and the axis of rotation is spaced apart from said cam by a distance, and

wherein the tilting mechanism is configured to cause the support member to tilt between the neutral position and the extreme position through rotation through 180 degrees or more of the cam about the axis of rotation.

32. (Previously Presented) A device for sorting products, comprising:

a plurality of supporting units adjacently arranged and configured to move in a direction of transport along a conveying path, each supporting unit including a conveying element configured to move along a guide extending according to said conveying path and at least one load carrying platform comprising a supporting surface for supporting a product, a support member supporting the supporting surface, and a tilting mechanism configured to tilt the supporting surface about an axis of tilt parallel to the conveying path with respect to the conveying element,



wherein the tilting mechanism comprises a drive device and at least one cam configured to be rotated by the drive device about an axis of rotation extending parallel to the axis of tilt when the cam moves over a camway so as to cause the support member to tilt about the axis of tilt between a neutral position and an extreme position, and the axis of rotation is spaced apart from said cam by a distance,

wherein the load carrying platforms of adjacent supporting units abut against each other, each supporting surface comprising upper sides of a supporting element and of a bridging element which overlaps the supporting element at a first end thereof and which is movable in a direction parallel to the supporting surface with respect to the supporting element so as to retain mutual abutment of adjacent load carrying platforms upon passage through a curved section, and

further comprising spring means for causing the adjacent load carrying platforms to abut against each other.